

Comments from Erik James, GSA

Facility ID Standards: (Items in parenthesis reference specific line numbers)

As mentioned in our last meeting, the current draft of the Facility ID Standard makes it clear that all components: core, associated data & type descriptor are mandatory (#145-150). Perhaps this is all because it falls under the heading of "The Standard for Location and Identification of Facilities" (#144). The idea as you described, that *only* the core elements make up the ID is simply lost in the document, if in fact this is the case. In lines 1-143, there is no reference to the optional nature of the type descriptor and associated data. In fact the only reference to selective inclusion is the method of describing locational information (#159).

Response: Agreed. The optionality of data for this standard is unclear and must be clarified. Section 3.1 (145-152) says "Core data" describe the place where located, with facility type and UID itemized separately; Section 3.2 (153-172) lists UID, source, type, descriptive locational, and spatial data as core data. This will be reorganized and optionality addressed in the document, and not left to the Appendices. See lines 35-38, 157-162, 165-171, 217 Section 3.2 has been rewritten to incorporate 3.4 and 3.5. Section 3.3 has stayed the same.

In fact the Scope seems to clearly indicate that type and category are *components* of the core set of information (#34-35). The applicability component (#53-62) further enhances the perception of all components being taken as a whole, as it states that Facility Type is to be included along with Location as a primary (core) component. All of this differs substantially to our discussion where you indicated that all but location were optional.

Response: These are an accurate description of Core data. My recollection of our discussion at the Facility Project Team meeting is that we stated that Organization, Mailing Address, and Contact information are optional, but that the UID, type, and location were required. (Type and location are necessary to uniquely identify a facility, before a UID can be assigned.) Sorry for the misunderstanding.

If the standard is to be founded on a core set of components relating to a unique ID upon which the location, type, name and source of the facility data are optional, then the committee must state so up front.

Response: These are not optional, and should be identified as mandatory up front.

From my reading, the unique, unintelligent ID is only *one* component of what is described as "core" identification criteria. Please realize that this "core" criteria, cannot contain *any* reference to facility name, address or type, as previously discussed. Changes to this information over the facility's lifespan would force the Facility ID to change over time which is not acceptable and is apparently in violation of a Public Law that GSA is bound by, as Ms. Blyler has recently discovered.

Response: The proposed standard is particularly concerned that the Facility ID should not change over time. Name changes or ownership changes will not require changes to the ID. Only when a facility is demolished and a different facility type is constructed at the same place, or if a facility is physically moved to a different place would a new ID be required. Even then, historical records should be maintained to track facility changes and UIDs at a site, or a new UID for a facility that was physically moved to another location.

Please recognize that a Facility ID is used by many property owners as the "primary key" of many, many databases that are user to manage various aspects of that facility. The consistency of this element over time is crucial to many business operations, ranging from the production of accurate billing records, to the maintenance of building services. A change to a facility ID would have the same catastrophic effect to management of this data, as would changes to one's Social Security Number would have upon one's credit record, voting rights and taxation history.

One's SSN doesn't change when one changes jobs or marries; it is a unique key which allows one to reference the same person over their lifetime irrespective of changes in lifestyle. Likewise, the same

sense of permanence must exist as the core component of a facility identifier; as one's SSN is supposedly tied to one's date and place of birth, the Facility ID must also be tied to nothing more substantive than a facilities place of origin.

Response: A facility identifier is not directly comparable to a SSN. A SSN is assigned to a person (even to infants). People grow up, have different careers and live in different places and the SSN remains the same. People can be uniquely identified through finger prints and DNA. Facilities cannot. Facility IDs are assigned to objects manually constructed at a place for a purpose. If a facility is no longer at the same place (because it was demolished or moved to another location) the ID can only be associated with the facility in a historical sense. The facility ID is not assigned to a place. When an airport is removed and a prison constructed at the same site, the place is occupied by a different facility with a different ID.

Again, if the Facility ID is produced from minimum of a Unique ID, Source ID and Reference to its Physical Location (the means of which are TBD Later), then the Standard will probably work for property management organizations such as GSA. If so, the usage scenarios, scope and identification portion of the standard will have to be rewritten to clearly indicate this to be the case.

The minimum set of data includes Facility Type -- a school is not a post office or a hospital; they are different facilities, even if a hospital is built on the site of what was once a school.

If, however, the minimum set of data that makes up a Facility ID includes *any* information that historically changes over the lifespan of a facility (i.e.: name, address [due to street renamings], building type, etc) then the standard simply cannot be accepted as a primary means of identification. As I see it, the only thing that can possibly be allowed to "change" a facility ID would be either the PHYSICAL relocation of a facility (i.e.: moving via tractor trailer), or the demolition and subsequent reconstruction of said facility.

The standard indicates (D.4.7 - line 682) that new facility IDs are required where the actual, exact location changes or the facility type changes. Line 684 states that updates to locational information to correct errors or to provide more accurate coordinate data does not constitute a change of location. This sentence will be enhanced to clarify that changes such as those made by municipal governments to street names and numbers and changes by the U.S. Postal Service to ZIP codes do not constitute a change of location. We agree that the physical relocation of a facility or the demolition and subsequent reconstruction of a facility becomes a new facility. Cross references to maintain histories are recommended by not mandatory by the standard. *See Lines 694-697.*

Respectfully, Eric James Integration Manager GSA PBS CAD Center

9/8/98

I believe this came from Jack Siegel at Randolph Airforce Base. If you want to contact him, let me know and I'll see if I can get an Internet address for him.

- Nancy

[illegible]

There is no relationship between this system and the Tri--Service Spatial Data Standards that all DOD installations are supposed to be using. I foresee great difficulty in referencing potentially at least 3 numbering systems (fac #, street address, and now Unique Fac ID). There is nobody at base level capable of creating or maintaining this data base. We have enough trouble just getting our maps into digital form in the Tr- Service Standard. Suggest you get with AFCEE to discuss the real world of base-level planning and mapping.

If the fac # mentioned above is an identification number that is uniquely assigned to a facility and is not subject to change over time, there should not be a need for a second facility ID (i.e., what is referred to as a Unique Fac ID). If however, the number includes intelligence about a facility and that number changes when the information that provides the intelligence changes, than a unique, unintelligent Facility Identifier would be required. Unique identification of a facility should not affect planning and mapping.

Comments on the FGDC Facility ID Standard

Bruce D. Spear
Director, Office of Geographic Information Services
Bureau of Transportation Statistics
and
Chair, FGDC Ground Transportation Subcommittee

Thank you for the opportunity to review the *Data Content Standard for Location and Identification of Facilities*, hereafter referred to as the *Facility ID Standard*. I apologize for not having reviewed it before now. However, now that I have reviewed it, I have a number of serious concerns regarding its scope and usefulness as currently proposed. My concerns are discussed below.

1. Scope: Inclusion of Networks and Transportation Objects.

The proposed standard specifically identifies networks and transportation objects as facilities to which this standard applies. As you know, the FGDC Ground Transportation Subcommittee is currently in the process of developing a standard for defining and assigning unique identifiers to transportation network segments in general, and to road segments in particular. The *Framework Road Data Model Standard*, is significantly more detailed in defining how a road network should be segmented, and proposes a format for a unique identifier that is incompatible with the format proposed in the *Facility ID Standard*.

The justifications for the unique identifier format in the proposed *Framework Road Data Model* are sufficiently compelling that the Ground Transportation Subcommittee would not be willing to adopt the identifier format proposed in the *Facility ID Standard*. This means that FGDC would be endorsing two standards that would require data developers to assign different unique identifiers to the same feature, thereby undermining the usefulness of both standards.

The *Facility Location and Identification Data Content Standard* requires that an unintelligent identification be assigned to each facility. The format proposed for an identifier (Appendix D), is informative, not mandatory. Any unique identifier that does not change when such things as ownership change, is acceptable. If the identifier proposed by the *Framework Road Data Model* incorporates intelligence, and the identifier for a segment of a road network changes based on changes to that intelligence, the identifier would not meet the requirements of the Facility Standard. If the identifier does not change for the 'facility', there is no need for two identifier.

Beyond the question of incompatible identifiers, the *Facility ID Standard* provides no guidance concerning how a network should be segmented. The problem of segmentation is sufficiently complex that, without guidance or specific standards, the assignment of a unique identifier to a road segment is meaningless.

Agreed, and the Facility Standard does not intend to reproduce or conflict with the Framework Standard. I suggest that we include a reference to the Framework Standard as a related standard, much as has been done with the Address and the Metadata Standards. See lines 73-81.

I recommend that the *Facility ID Standard* reduce its scope to exclude network features that would potentially be covered by the *Framework Road Data Model Standard* and its extensions. This includes, at a minimum, (as identified in Appendix C of the *Facility ID Standard*), C.1.3.2 - Railroad Network, C.1.8.1 - Road Segments, and C.1.8.6 Railroad Track Centerline.

These examples have been removed from the standard. Some road segments, however, are regulated by agencies, such as the EPA, and they are included in facility systems. Therefore, basic location information and identification numbers are needed to maintain data related about them.

2. Procedures for Assignment and Maintenance of the UID

The *Facility ID Standard* specifically states that it “does not provide implementation procedures for a central registry to assign UID to facilities” (line 51). The standard further states that “The UID to identify a place-based object will be assigned by any agency or organization with a direct concern for identification of the facility. Where more than one organization assigns a UID to the same facility, a cross-reference of the UIDs can be maintained whenever it is appropriate.” (lines 643-645). Furthermore, “Each organization will maintain its own registry for maintaining the UID” (line 650).

Unless I'm missing some critical part of this standard, it appears that the UID is simply an internal identifier, unique to each organization that keeps records about some type of facility, and that there is no mechanism or centralized registry recommended in the standard for sharing those UIDs. Moreover, each facility can have as many UIDs assigned to it as there are organizations with an interest in it. For example, the Federal Aviation Administration (FAA) may assign a UID to each airport. EPA may include some of those airports in its database of potential air pollution sites, and DOD may include a different subset of those airports in a military facilities database. Aside from the 12-digit UID format, how is this any different than the unique ID number assigned to each record in a conventional database file?

The unique ID assigned in a conventional database file might well be the UID. The concept, however, is that the number is permanently assigned to a facility constructed at a place for a purpose. The number must not be intelligent (i.e., it must not change if ownership or other information about the facility changes but the facility itself does not change.)

The standard further states that “The identify of the source of the UID will be maintained among the General Identification Data and will be required for data transfer” (lines 646-647). However, the identity of the source agency is not an integral part of the UID itself. This implies that there will be different facilities with the same UID assigned by different source agencies. For example, FAA may assign Dulles Airport a UID of 12345678987_, and EPA may give that same number to an effluent pipe for the San Jose sewer system. Given the large number of potential agencies that could be sources for UIDs, I fail to see the value in a UID that is unique only within a particular agency's database.

The locational information and the type of facility must be associated with the identification number, and the number cannot change as long as the physical location and the type of facility remain the same. It is necessary when organizations share data about a facility that cross references remain constant. For example, the number assigned by EPA to a military airport must be identified sufficiently that it can be cross referenced to the same airport in a DOD military facilities database, and the identification numbers in that cross reference should not change. This is why ‘source of the identifier’ is necessary when sharing data based on identification numbers. A central registry of all facilities would make data sharing easier, but is not likely at this time. See section E.3 for suggested parent/child relationships.

If the *Facility ID Standard* is to be useful for geo-spatial data sharing, it should go further toward establishing a registry (either centralized or distributed via the Internet) in which agencies can assign a UID to a facility and post that information so that others may use the same UID, or at least be able to cross reference it with their own internal identifiers.

There is no question but that this would have value for facility identification. The FGDC is a standards setting organization, however, not a policy one. Establishing a central registry is a policy decision outside our jurisdiction.

3. Geographic Scope of Facility

The *Facility ID Standard* provides no guidance in defining the extent of the facility. Based on the required coordinate information, each facility is treated as a point. This can result in ambiguity for any facility whose spatial extent varies depending on the perspective of the assigning organization. For example, FAA may define a single point for an airport, located at the geographic centroid of its complex or runways. However, the local airport authority may chose to divide the same airport complex into three facilities: the passenger facilities, cargo facilities, and a military complex. I can find no provision in the standard that enables the UID

assigner to define the extent of the three facilities within a facility. Consequently, any effort to cross reference the UIDs assigned by FAA and the local airport authority would be comparing “apples and oranges.”

The Facility Standard requires spatial data to locate the facility. It refers to the Content Standard for Digital Geospatial Metadata for metadata requirements. The metadata standard provides for spatial instances that can describe a point, line, or area, and requires method and accuracy information. The standard does not limit spatial characteristics to point information. That shall be clarified in the Final Draft. See line 332-333

D.4.10 allows for cross references for facilities within a larger facility. The wording will be reviewed and revised as necessary to clarify this concern. See lines 695-697

Comments from Fredrik (Rik) Wiant, US ARMY CENTER FOR PUBLIC WORKS

1. The purpose of this note is to clarify several general comments that I have made about the potential facility Unique Identification (UID) number -- intended to facilitate interagency facility data sharing.
2. At our 25 Aug 98 FGDC Facility Management Working Group meeting I attempted to raise several questions, which must be answered before we take the proposed standard any further.
 - a. How do we envision the standards working in practice? How will agencies incorporate the core set of data?

EPA requires locational information and facility category be collected about facilities. Unintelligent identifiers are uniquely assigned to facilities, based on these key identification data. One would assume that all facility systems collect most if not all of these data in order to uniquely identify a facility. The GSA form 1166 collects information that locates and classifies facilities. The only data required by the standard and missing on the GSA form is spatial data. Geospatial data are necessary to a geospatial data standard.

- b. Will our own agencies accept them?

Key identification data is needed to identify a facility, or data sharing across organizations is not possible. If agencies do not currently collect locational data and categorization information about a facility, it will be necessary for any data sharing.

- c. When and how do we see this standard coming into use?

This standard should be implemented as systems are revised, enhanced, or reengineered under normal system maintenance cycles. Observations show that systems tend to be revised every few years, so any changes needed to implement this standard should occur within 5 - 10 years.

- d. What will it cost? What is the return on investment for adopting the standard?

The following response is quoted from Bruce Bargmeyer, EPA, chairman of the Facility Identification Standard Project Team:

If frozen by existing applications, we could never evolve to better data standards. If pursued on a "big bang" basis--every application updating to new standards immediately--the costs would be

astronomical. For example, see how much it is costing to change to the Y2K date standard in all applications. Thus, we should make evolutionary data standards--implement the standard when systems are created or when revised for programmatic reasons. Then data standards may result in a cost reduction--saving the application developers the cost of developing the data designs and the cost of acquiring standard data element values.

3. To expand on the first question. How will the Army implement the UID with its Integrated Facility System (IFS) -- our database of record. Will this standard require us to add fields to IFS? Will it increase the database? Will it require additional operator data input? As I read the standard now, the answer to all those is yes -- and the cost will run into the millions. There are two plausible, but not really viable options.

See above regarding cost.

a. Wait and incorporate all the UID changes in the next database design. Its highly unlikely that we will ever do a full redesign - and that still begs the question about incorporation of a large number of data elements which serve no installation business purpose. If we wait for this, the Army will never use this standard.

b. Use it only when data is passed between agencies. There are two problems to this. EPA may think of this as being a few records (perhaps relating to a few noncompliance areas), but in many cases we will be sharing data on hundreds or thousands of entities (think of privatizing a utility system and sending every line segment, transformer, pole, etc.) We cannot wait to till the transfer to complete the rest of the field data.

4. The Army will not use this standard unless it sees corresponding benefits. Which means as a minimum, that GSA, Census, EPA and other regulatory and reporting agencies adopt it.

EPA has adopted it. See lines 246-253 As noted above, the GSA form 1166 collects all the required locational data and classification type. The GSA form is only lacking geospatial data.

5. The UID is only feasible if:

a. It can be used with existing legacy data systems, with only minor changes.

b. It does not require any extensive data input.

Each agency (organization) will need to examine its own systems as to what data is currently collected and what additional data is required. As commented above by Bruce Bargmeyer, this should be an evolutionary change. The standard, however, must be in place to provide guidance for those future changes.

6. The original propose meets these requirements. It would have only required that an agency registry number be appended to each record, which -- if necessary -- could have been done by the receiving agency. In any case, it could be done at the time of transfer, without any modification of the agency database.

A number alone is insufficient to identify and locate a facility. There are many EXXON stations in Virginia. An identification number is sufficient to relate data within a system, but only when one has established the specific EXXON station to which the number has been assigned. This requires

initial data transfer of locational information as a minimum, until cross references have been established.

7. The "nonintelligent" identifier could have been added at a modest cost. In the Army case, it would mean adding a field to the IFS database and program module to generate and fill the field (both for new entries and existing ones).

8. The POC data should be obtained from the installation metadata file -- incorporating it in record transfers is not only very inefficient, it means permanently tagging records with data that will become obsolete.

POC data is not mandatory for the standard. It would never be required in record transfers.

9. We should not introduce additional facility attribute data (i.e., "core data"). Use the agencies description. If not understood, go back to the originator. Eventually, we will have much covered by common attribute descriptions anyway (like TSSDS).

The 'agencies' description' would have to include core data for adequately describing the type of facility and its location.

10. Since we are moving geospatial data, assume that the transfer records are a composite of location data (generated by the GIS) and attribute data (from the agency database). Let the metadatafile describe the location data -- gaining agency can covert as necessary. Do not prescribe location data standard.

The Facility Standard does not prescribe a 'location' data standard. It refers to the address standard as the requirement for locational information, and it refers to the Metadata standard as the requirement for spatial data. The Facility Standard simply requires that facilities shall be uniquely identified by assigning a unique number based on facility type and location.

11. UID assignment/changes. Facilities change over time. The owning real property activity is ultimately the only source of complete and accurate data and any other using agency should always be aware that attribute data can have changed since they received the data. Hence:

a. Only the owning agency should assign a UID. Change D.4.1. Otherwise two agencies are maintaining different, possibly diverging, attribute data on the same object.

This would be impractical for every instance. For example, EPA assigns unique numbers to federal facilities for which environmental data have been reported to the EPA. Cross linkages should be established for data transfer between a federal facility and the EPA.

b. Delete the requirement (D.4.10) to change UID when boundaries change. Leave to agency discretion. **Appendix D is informative. Therefore its usage is at the discretion of the agency.** Note that buildings are frequently modified, sometimes changing footprints (boundaries). Spatial data changes all the time for other entries as well (street segments, utility lines etc.)

This statement is intended to clarify how data sharing can be possible for the example given by Erik James above:

"This can result in ambiguity for any facility whose spatial extent varies depending on the perspective of the assigning organization. For example, FAA may define a single point for an airport, located at the

geographic centroid of its complex or runways. However, the local airport authority may chose to divide the same airport complex into three facilities: the passenger facilities, cargo facilities, and a military complex. I can find no provision in the standard that enables the UID assigner to define the extent of the three facilities within a facility. Consequently, any effort to cross reference the UIDs assigned by FAA and the local airport authority would be comparing 'apples and oranges.'"

D.4.10 allows for cross references for facilities within a larger facility. The wording has been reviewed and revised to clarify this concern. See lines 694-697

d. Delete D.4.7. Agree that no change required for minor location corrections. Comment on changing facility type is confusing. A minor change in building type should not require a UID change. A building that becomes a concrete slab is no longer a building, and should have a new UID. It is a new facility (even if composed of the old material) in the place of the old facility (the UID for the building needs to be retained as a historical reference to the now demolished structure).

This is exactly what D.4.7 is intended to say. It has been reworded to clarify when a number should be changed and when it should stay the same. See lines 682-686

11. Bottom line. Before we take the standard forward, we should actually try to use it in a hypothetical business case. Make sure its useable before we create a monster.

It is actually being used at the EPA, not as a hypothetical business case, but as an actual facility identification system for sharing environmental data across multimedia environmental programs, for a facility. See lines 246-253

Thanks, Rik

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"PLANNING FOR EXCELLENT INSTALLATIONS"
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Comments from Ronald B. Niemi, US Army Center For Public Works

November 7, 1997

1. Subsitute 'geospatial' for geographic in line 4 for 'dissemination of geospatial data'.

This has been done.

The Standard provided (attached) is dated December 1997, and contains no changes, therefore, my remarks remain the same as last November's:

See line 7.

1. Page 45, paragraph D.4.1: Second paragraph reads "Where more than one organization assigns a UID to the same facility, a cross-reference of

the UIDs can be maintained wherever it is appropriate". It is totally inadvisable to have multiple "Unique" identifiers for the same entity.

It would be good to have a central facility registry, but that is not likely, and as a standards setting group, we do not have the authority to establish that policy. For data sharing, the source of the UID will always accompany the number. Therefore a UID of 12345 can be assigned to Facility A by EPA, and by DoD to Facility B, and the number will be unique in the context of the source.

2. Page 46, paragraph D.4.7: First sentence reads "New facility UIDs are required for existing facilities where the actual, exact location changes or the facility type changes". We often change the use of a facility (e.g. warehouse to general purpose admin), and according to this definition, we would be required to change the UID. This makes no sense at all. The use of a facility is an attribute, and should not cause a change in UID, or we would be changing UIDs on a regular basis.

The use of a facility does not cause the facility type to change. If a facility is reconstructed (e.g., to make a large open barn of a warehouse into office space), this might constitute a new facility, depending on the specific management practices. If the facility type is "building", it probably would not be considered a change. Examples of typing of facilities have been provided as informational. An organization can type at whatever level of detail makes sense for that organization.

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Comments from Bryan Perdue

From: Perdue, Bryan L WES01
> Sent: Wednesday, September 09, 1998 2:48 PM
> To: Blyler, Nancy J HQ02
> Subject: Facility ID's
>
> Nancy -

'Tis as I feared - we are essentially creating a duplicate number for the installations that will require reformatting every single "property" entity on an installation. If I understand this correctly, we track our buildings by unique identifiers that when used in conjunction with one another allows us to pinpoint a facility anywhere on an installation. This is done through the building number, street address, organization assigned, and the facility classes and construction category code. Using these codes in combination with one another allows for unique identification of a facility and also allows for a facility to "change" that is move from one use and organization to another while still maintaining the integrity of the data assigned to that facility.

The Facility ID package does not address changes in facilities. Why, you ask, would a facility change its number? An organization can relocate and the "old building" is assigned another use and another user. This would necessitate changing its Facility ID. Once the facility ID changes there is no existing link to the "old data"

The standard does allow for changes to a facility. There seems to be agreement among the project team that a new facility ID should be assigned when a facility is demolished and a different facility type is constructed at the same place, or if a facility is physically moved to a different place. Even then, historical records should be maintained to track facility changes and UIDs at a site, or a new UID for a facility that was physically moved to another location.

There is a "naming" convention used throughout DoD identified in DODI 4165.3 that outlines this convention. This also allows planners the capability to determine land use on installation to ensure that functional relationships exist and are maintained ensuring quality of life of the residents and the ease of operation for mission accomplishment. The facility ID appears to make this recognition more difficult and does not allow for cross referencing land use.

Appendix E of the Standard addresses cross references of Facility IDs, whether to show parent/child relationships or cross references of numbers assigned by different groups for the same facility. A cross reference can also be maintained for land use changes.

Not only is this code used for planning purposed it is also used to facilitate construction, inventory, programming, maintenance, accounting, record keeping etc. This coding also identifies the infrastructure on an installation e.g., utilities, roads etc that are being addressed in other FGDC standards (Transportation -Roads) and I think there is a group working on utilities too. If these data are changed it will require a multi million dollar investment to realign the data and this realignment may impact the ability of the services meet their war time commitments because a lot of this data is tied to the inventory, budget, planning and location of war time assets.

No conflict is anticipated between the Facility ID Standard and other FGDC standards. The data collected about utilities and roads is not affected by data required for the location and identification of facilities or features.

Bryan

Please see Bruce Bargmeyer's comments in response to your concerns.

Comments from Bruce Bargmeyer in response to Lois Fritts regarding Bryan Perdue's concerns.

Lois--

Comments about the Facility ID, similar to the one you sent below, could be written for every existing application. If frozen by existing applications, we could never evolve to better data standards. If pursued on a "big bang" basis--every application updating to new standards immediately--the costs would be astronomical. For example, see how much it is costing to change to the Y2K date standard in all applications. Thus, we should make evolutionary data standards--implement the standard when systems are created or when revised for programmatic reasons. Then data standards may result in a cost reduction--saving the application developers the cost of developing the data designs and the cost of acquiring standard data element values.

We should not halt progress on the FGDC Facility ID data standard due to the fact that it is different than what is implemented in existing applications.

If, however, the implementations represent a more elegant solution to the issue addressed, then we should explore the insights brought to us by the existing implementations. There is not enough detail in the comment to do that, but in general it looks like the application uses information in addition to the ID number to create primary and foreign keys for accessing data. There is nothing in the Facility ID that stops folks

from doing that. It also sounds like the application tracks changes. That is also possible with the Facility ID. However, I might want to argue with the notion of changing the ID number when there is a change in related information. (If that is what the comment is suggesting.) It would seem much more efficient for data base management to keep the ID the same and to track the change of any other information. Changes in the ID or, worse yet, in intelligence built into the ID, cause very expensive database updates to be propagated through the systems. It is not clear from the comment, whether or not this is the situation for the systems cited. From the comment, it was also not clear whether the ID used is intelligent or not, but it sounds like some sort of concatenated key is used to establish uniqueness. We would need to know more to see if this is good design or not. I don't think the committee should get involved in such an analysis, unless the commenter believes that the existing approach is superior to the proposed Facility ID standard and is therefore a better choice for all new systems to migrate to. If they have a better mousetrap, then let them show us how it is better for us all. And let us see if we all agree.

Short of someone coming up with a better solution to the issue at hand we should proceed.

Current applications should be able to accommodate this standard with a simple cross-reference table that maps the Facility ID to any existing IDs. EPA has implemented this in our facility identification system at no great cost. And, again, there is no requirement for existing systems to use the Facility ID standard. However, it may turn out to be cheaper to share data with organizations such as the Federal Emergency Management Administration (FEMA) through use of the proposed Facility ID.

I am concerned about the suggestion that other FGDC standards may be incompatible with the Facility ID. Other FGDC standards are likely, however, to be out of scope for "facilities". Feature and other types of IDs may be similar to the Facility ID, but are used in different types of systems. We have talked some about offering the Facility ID for use by the Features folks. They have not picked up on the suggestion, indicating that they think they are solving a different problem. It may be worth checking one more time with the feature ID folks, but I would think that that would be something for the FGDS standards coordination group to do. If one wants to take the expansive approach to IDs, then it is possible to assign a unique "object ID" to anything. It is thought that a 128 bit ID would be sufficient for identifying all of the potential objects for quite a long time (an ID for every grain of sand, so to speak). Microsoft sells software that generates such an ID. We may get to such an ID in the very long run, but the practicalities of dealing with such large, bit-oriented object IDs argue against our adoption of such an approach at this time. Therefore, domain specific IDs, such as the proposed Facility ID, are the better choice for the FGDC.

At any rate, the Facility ID is based upon the current industry best practice and would present an improvement for most systems as they evolve. It would not be applied retroactively.

The acceptance of the Facility ID standard should not hinge on whether or not it is used in existing systems or how much it would cost to revise the systems. There is a huge cost to having no standards or to having organization-specific standards. These costs are encountered whenever data is shared beyond the boundary of the existing scope of the application(s). We are setting into motion a means to migrate toward a lower cost data sharing environment. It will take time, but huge amounts of money will be saved.